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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/670,705	09/27/2000	Gerhard Reichert		6878

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EXAMINER
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GOFF II, JOHN L

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 11/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/670,705	<b>Applicant(s)</b> REICHERT, GERHARD	
	<b>Examiner</b> John L. Goff	<b>Art Unit</b> 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2005.  
 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 32-40 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 32-40 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 27 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is in response to the amendment filed on 8/25/05. The previous 35 USC 112 rejections have been overcome.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Claim Rejections - 35 USC § 102***

3. Claims 32-34, 39, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Glover et al. '217 (U.S. Patent 5,007,217).

Glover et al. '217 disclose a method of fabricating an insulating glazing unit including providing a first glass sheet having a first perimeter (41 of Figure 2A), providing a second glass sheet having a second perimeter (41 of Figure 2A), disposing between the first and second glass sheets a foam body spacer (40 of Figure 2A) including a desiccant, a moisture barrier layer (46 of Figure 2A), and two insets that define two notches such that an outward channel and desiccant accessible insulating chamber are formed, using an adhesive (43 of Figure 2A) to directly bond the first and second glass sheets to the opposing sides of the spacer wherein the moisture barrier layer and notches face the channel and each notch is adjacent a glass sheet, applying a primary sealant (44 of Figure 2A) in the channel at the notches of for example polyisobutylene (a moisture impermeable sealant as defined by applicants at page 10, lines 20-22 and page 11, lines 1-4 of the specification which functions to hermetically seal the insulating chamber), and subsequently applying a secondary thermosetting sealant (47 of Figure 2A) in the channel of for

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example silicone (a structural sealant as defined by applicants at page 11, lines 7-10) (Figures 2A and 2B and Column 6, lines 61-66 and Column 7, lines 5-6 and 25-26 and Column 8, lines 50-68 and Column 9, lines 1-12). Glover et al. '217 teach advantages of using a foam body spacer include low thermal conductivity, reduced heat loss for the glazing unit, and reduced thermal glass stress (Column 5, lines 22-68 and Column 6, lines 1-11).

***Claim Rejections - 35 USC § 103***

4. Claims 32, 33, 35, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Town (U.S. Patent 6,002,521) in view of either one of Glover et al. '217 or Glover et al. '344 (U.S. Patent 4,950,344).

Town discloses a method of fabricating an insulating glazing unit including providing a first glass sheet having a first perimeter (2 of Figure 11), providing a second glass sheet having a second perimeter (4 of Figure 11), disposing between the first and second glass sheets a spacer (42 of Figure 11) including a desiccant and two insets that define two notches such that an outward channel and insulating chamber are formed, using an adhesive (24 of Figure 11) to directly bond the first and second glass sheets to the opposing sides of the spacer wherein the notches face the channel and each notch is adjacent a glass sheet, applying a primary sealant (26 of Figure 11) entirely across the channel of for example polyisobutylene (a moisture impermeable sealant as defined by applicants at page 10, lines 20-22 and page 11, lines 1-4 of the specification which functions to hermetically seal the insulating chamber), and subsequently applying a secondary thermosetting sealant (47 of Figure 2A) in the channel of for example silicone (a structural sealant as defined by applicants at page 11, lines 7-10) (Figure 11 and

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Column 4, lines 64-67 and Column 10, lines 44-55 and Column 11, lines 10-67 and Column 12, lines 1-50). Town is silent as to using a foam body spacer it being noted Town teaches the spacer may be formed of materials well known in the art (Column 12, lines 12-16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the spacer in Town a foam body spacer as was well known in the art as shown for example by either one of Glover et al. '217 or Glover et al. '344 for reasons including lower thermal conductivity for the spacer, reduced heat loss for the glazing unit, and reduced thermal glass stress.

Glover et al. '217 is described above in full detail. Glover et al. '344 disclose a method of fabricating an insulating glazing unit including providing a first glass sheet having a first perimeter (21 of Figure 5), providing a second glass sheet having a second perimeter (21 of Figure 5), disposing between the first and second glass sheets a foam body spacer (20 of Figure 5) including a desiccant, a moisture barrier layer (24 of Figure 5), and two insets that define two notches such that an outward channel and desiccant accessible insulating chamber are formed, using an adhesive (29 of Figure 5) to directly bond the first and second glass sheets to the opposing sides of the spacer wherein the moisture barrier layer and notches face the channel and each notch is adjacent a glass sheet, applying a primary sealant (30 of Figure 5) in the channel at the notches, and subsequently applying a secondary thermosetting sealant (25 of Figure 5) in the channel (Figure 5 and Column 6, lines 20-28 and Column 7, lines 63-68).

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5. Claims 32-35, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glover et al. '217 in view of Town.

Glover et al. '217 is described above in full detail. Glover et al. '217 are silent as to applying the primary sealant entirely across the channel. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Glover et al. '217 to include applying the primary sealant entirely across the channel to better the seal the glazing unit as was known in the art and shown for example by Town.

Town is described above in full detail.

6. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Glover et al. '217 in view of Schlienkamp (U.S. Patent 4,519,962).

Glover et al. '217 is described above in full detail. Glover et al. '217 are silent as to using first and second sealant stations comprising first and second application nozzles to apply the sealants, it being noted Glover et al. '217 is not limited to any particular method.

Schlienkamp discloses a method and system for sealing the edges of insulating-glass panels. The sealing method of Schlienkamp is a continuous process wherein a glass pane is conveyed to a sealing station (Column 3, lines 23-27). A sealing nozzle then applies adhesive to the entire perimeter of the glass pane (Column 3, lines 42-44). It would have been well within the purview of one of ordinary skill in the art at the time the invention was made to apply the sealants taught by Glover et al. '217 using multiple sealant stations of the type suggested by Schlienkamp as only the expected results would be achieved.

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7. Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glover et al. '217 in view of Battersby (U.S. Patent 3,759,771).

Glover et al. '217 is described above in full detail. Glover et al. '217 are silent as to using a device comprising first and second applicators wherein the second applicator trails that of the first to apply the sealants, it being noted Glover et al. '217 is not limited to any particular method. Battersby discloses a method of making an insulating glazing unit (double glazing unit) (Column 1, lines 54-63). Battersby teaches providing a pair of glazing sheets separated by a spacer wherein the spacer is spaced inwardly from the perimeter of the sheets forming an outwardly facing channel and an inward insulating channel (Figures 1 and 5-7 and Column 2, lines 24-29 and 57-60). Battersby teaches sealing the insulating chamber by simultaneously applying a first and second sealant into the provided outwardly facing channel. The sealants are applied through an applicator with two heads wherein the second applicator head trails the first, thus the second sealant covers the first (Figures 2-4 and Column 2, lines 63-71 and Column 3, lines 1-2 and 11-17 and 40-45). Battersby teaches that the first and second sealants may be different (Column 4, lines 16-23), and the sealants comprise a wide variety of materials including polyisobutylene, polyurethane, and thermosets (Column 3, lines 62-63 and Column 4, lines 7 and 12-13). Battersby teaches that the sealants prevent the entry of dust and/or moisture into the insulating chamber (Column 2, lines 30-34). Battersby further teaches that the spacer may be formed of metal, plastics, or wood and may include a desiccant (Column 2, lines 40-44), and the spacer may have notched corners between the glazing sheets and the spacer with the first sealant applied in the notched corners (Figures 2-6 and Column 2, lines 45-56).

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Regarding claim 37, it would have been well within the purview of one of ordinary skill in the art at the time the invention was made to apply the sealants taught by Glover et al. '217 using a device comprising first and second applicators wherein the second applicator trails that of the first as suggested by Battersby as only the expected results would be achieved. Regarding claim 38, it is noted that in the method and apparatus of Battersby a retractable applicator nozzle is not necessary. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a retractable first nozzle if the nozzle would disturb the application of the second sealant.

8. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Town and either one of Glover et al. '217 or Glover et al. '344 as applied to claims 32, 33, 35, 39, and 40 above, and further in view of Schlienkamp.

Claim 36 is rejected in the same manner as that above in paragraph 6.

9. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Glover et al. '217 and Town as applied to claims 32-35, 39, and 40 above, and further in view of Schlienkamp.

Claim 36 is rejected in the same manner as that above in paragraph 6.

10. Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Town and either one of Glover et al. '217 or Glover et al. '344 as applied to claims 32, 33, 35, 39, and 40 above, and further in view of Battersby.

Claim 36 is rejected in the same manner as that above in paragraph 7.



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11. Claim 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glover et al. '217 and Town as applied to claims 32-35, 39, and 40 above, and further in view of Battersby.

Claim 36 is rejected in the same manner as that above in paragraph 7.

### *Response to Arguments*

12. Applicant's arguments with respect to claims 32-40 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues, "Additionally, the method of claim 32 requires that "at least a portion of said primary sealant material contacts each of said first and second glass sheets . . ." The Laminate Construction requires that the sealant material(s) contact the light dispersive film, and removal of this film from the Laminate Construction would obviate the stated purpose to be achieved by the '521 patent, the teaching of the '521 patent that relates to the Laminate Construction cannot be said to anticipate the method of claim 32."

The Laminate Construction (Figure 11) of Town teaches the primary sealant contacts the first and second glass sheets. The dispersive film (6) does not extend to the spacer as shown in Figure 11 and disclosed at column 11, lines 59-61.

Applicant further argues, "Thus, the '521 patent teaches that the structural sealant is applied first and then encased in or covered with a moisture impermeable sealant."

Town teaches applying a primary sealant (26 of Figure 11) entirely across the channel of for example polyisobutylene (a moisture impermeable sealant as defined by applicants at page 10, lines 20-22 and page 11, lines 1-4 of the specification which functions to hermetically seal the insulating chamber), and subsequently applying a secondary thermosetting sealant (47 of Figure 2A) in the channel of for example silicone (a structural sealant as defined by applicants at page 11, lines 7-10).

***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

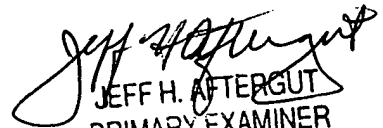
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John L. Goff



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